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10/542,657	07/19/2005	Hiroaki Sudo	L9289.05155	8923

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EXAMINER

DONABED, NINOS J

ART UNIT	PAPER NUMBER
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2444

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,657	Applicant(s) SUDO, HIROAKI	
	Examiner NINOS DONABED	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15, 17-19, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-15, 17-19, 21-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This communication is in response to Applicants amendment dated 3/8/2010.
Claims 9-15, 17-19, 21-22 have been amended. Claims 9-15, 17-19, 21-22 are pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 9-15, 17-19, 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claims 9 and 12, the phrase “a home agent that: registers, in association with one another” is vague and unclear as to what the “one another” actually is or what it encompasses. Claims 10-11, 15, 17-18 and 13-14, 19, 21-22 are rejected for being dependent on claim 9 and 12 respectively.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 9-10, 12-13 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vivaldi ("Fast handover algorithm for hierarchical mobile IPv6 macro-mobility Management") in view of Kakemizu (United States Patent Application Publication 20020199104).

Regarding claim 9,

Vivaldi teaches a communication system comprising: an access router that communicates with a communication terminal apparatus and transmits a first care-of address and a second care-of address to the communication terminal apparatus; **(See figures 1 and 2 and page 631, left column, Vivaldi teaches an access router which communicates with a mobile node and transmits two care of addresses)**

a home agent that registers in association with one another, a home address of the communication terminal apparatus, the first care-of address and the second care-of address, the first care-of address and the second care-of address having been transmitted through the network; and **(See figures 2 and 4 and page 631, Vivaldi teaches a home agent that registers a home address of the mobile terminal)**

transmits data, transmitted to the home address of the communication terminal apparatus, to a destination indicated by at least one of the first care-of address and the second care-of address, wherein: **(See figures 2 and 4 and page 631, Vivaldi teaches two COA's and data being transmitted to a destination based on the COA's)**

Vivaldi does not explicitly teaches a first mobility anchor point that issues the first care-of address and the second care-of address, and transmits the issued first care-of address and the issued second care-of address through a network

a second mobility anchor point that is adjacent to the first mobility, anchor point across a boundary with the first mobility anchor point; and

the first care-of address can be used in cells of the first mobility anchor point and cannot be used in cells of the second mobility anchor point;

the second care-of address can be used in predetermined cells and cannot be used in cells other than the predetermined cells:

the predetermined cells (i) include both of a first cell, which is part of the cells of the first mobility anchor point, and a second cell, which is part of the cells of the second mobility anchor point, the second cell of the second mobility., anchor point being adjacent to the first cell of the first mobility anchor point across the boundary with the first mobility anchor point and (ii) do not include at least one of (a) a cell of the first mobility anchor point and (b) a cell of the second mobility anchor point.

Kakemizu teaches a first mobility anchor point that issues the first care-of address and the second care-of address, and transmits the issued first care-of address and the issued second care-of address through a network **(See figures 18-19, and paragraphs [0199] – [0202], Kakemizu teaches a first map which issues two care-of addresses)**

a second mobility anchor point that is adjacent to the first mobility, anchor point across a boundary with the first mobility anchor point; and **(See figure 18, Kakemizu)**

the first care-of address can be used in cells of the first mobility anchor point and cannot be used in cells of the second mobility anchor point; **(See figures 18-19 and paragraphs [0198] – [0203], Kakemizu teaches the first COA in cells of the first MAP)**

the second care-of address can be used in predetermined cells and cannot be used in cells other than the predetermined cells: and **(See figures 18-19 and paragraphs [0198] – [0203], Kakemizu teaches the second COA can be used in cells of the second MAP)**

the predetermined cells (i) include both of a first cell, which is part of the cells of the first mobility anchor point, and a second cell, which is part of the cells of the second mobility anchor point, the second cell of the second mobility anchor point being adjacent to the first cell of the first mobility anchor point across the boundary with the first mobility anchor point and **(See figures 18-20 and paragraphs [0196] – [0202], Kakemizu (ii) do not include at least one of (a) a cell of the first mobility anchor point and (b) a cell of the second mobility anchor point. (See figures 18-19 and paragraphs [0198] – [0203], Kakemizu)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Kakemizu with Vivaldi because both deal with methods of increasing handover speed in a mobile network. The advantage of incorporating a first mobility anchor point that issues the first care-of address and the second care-of address, and transmits the issued first care-of address and the issued second care-of address through a network a second mobility anchor

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point that is adjacent to the first mobility, anchor point across a boundary with the first mobility anchor point; and the first care-of address can be used in cells of the first mobility anchor point and cannot be used in cells of the second mobility anchor point; the second care-of address can be used in predetermined cells and cannot be used in cells other than the predetermined cells: the predetermined cells (i) include both of a first cell, which is part of the cells of the first mobility anchor point, and a second cell, which is part of the cells of the second mobility anchor point, the second cell of the second mobility, anchor point being adjacent to the first cell of the first mobility anchor point across the boundary with the first mobility anchor point and (ii) do not include at least one of (a) a cell of the first mobility anchor point and (b) a cell of the second mobility anchor point of Kakemizu into Vivaldi is that indicates the procedure for providing a service prescribed for each subscriber or a terminal device and efficiently provides a service prescribed for each subscriber or terminal device thus making the system more robust and efficient. **(See paragraphs [0012] – [0014], Kakemizu)**

Regarding claim 10,

Vivaldi and Kakemizu teach the communication system according to claim 9, wherein the mobility anchor point changes how many cells are to be included in the predetermined cells. **(See paragraphs [0198] – [0199], Kakemizu)** See motivation to combine claim 9.

Regarding **Claim 12**,

Claim 12 list all the same elements of **claim 9**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 9** applies equally as well to **claim 12**.

Regarding **Claim 13**,

Claim 13 list all the same elements of **claim 10**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 10** applies equally as well to **claim 13**.

Regarding claim 15,

Vivaldi and Kakemizu teach the communication system according to claim 9, wherein the predetermined cells consist of the first cell of the first mobility anchor point and the second cell of the second mobility anchor point. **(See paragraphs [0197] – [0200], Kakemizu)** See motivation to combine for claim 9

Regarding claim 17,

Vivaldi and Kakemizu teach the communication system according to claim. 9, wherein the first mobility anchor point that issues the first care-of address and the second care-of address **(See figures 2-4 and page 631, Vivaldi)**, further issues a third care-of address for identifying the communication terminal apparatus in a network of the an access router communicating with the first mobility anchor point and registers the

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third care- of address in the home agent. **(See figures 3-4 and page 632 left column, Vivaldi)**

Regarding claim 18,

Vivaldi and Kakemizu teach the communication system according to claim 9, wherein, when the communication terminal apparatus moves from a cell of the second mobility anchor point to a cell of the first mobility anchor point through one or more of the predetermined cells the first mobility anchor point registers the first care-of address in the home agent while the communication terminal apparatus performs communication using the second care-of address in the one or more of the predetermined cells. **(See figures 2-4 and page 631, Vivaldi)**

Regarding **Claim 19**,

Claim 19 list all the same elements of **claim 15**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 15** applies equally as well to **claim 19**.

Regarding **Claim 20**,

Claim 20 list all the same elements of **claim 16**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 16** applies equally as well to **claim 20**.

Regarding **Claim 21**,

Claim 21 list all the same elements of **claim 17**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 17** applies equally as well to **claim 21**.

Regarding **Claim 22**,

Claim 22 list all the same elements of **claim 18**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 18** applies equally as well to **claim 22**.

7. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vivaldi ("Fast handover algorithm for hierarchical mobile IPv6 macro-mobility Management") in view of Kakemizu (United States Patent Application Publication 20020199104) further in view of Chubbs III (United States Patent Number 6400304)

Regarding **Claim 11**,

Vivaldi and Takahashi teach the communication system according to claim 10, wherein the mobility anchor point detects a moving speed of the communication terminal apparatus, and in a case communicating with the communication terminal apparatus moving at high speed, sets the predetermined to include more cells than in a case of communicating with the communication terminal apparatus moving at low speed. **(See paragraphs [0198] - [0200], Kakemizu)**

Chubbs, III. teaches an integrated GPS system which can detect the speed of a car. **(See Abstract and Column 1 Line 60 – Column 2 Line 26, Chubbs III .)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine Vivaldi and Kakemizu with Chubbs, III because GPS systems commonly detect speed of vehicles and mobile nodes are commonly used in vehicles, thus a combination of the inventions would provide for a mobility anchor point system which could detect the speed of a mobile node.

The mobility anchor point after knowing the speed of the mobile node using the GPS system could have issued another care-of-address to a larger group of cells after detecting the speed of the mobile network because this would help increase the efficiency of the connection during handoff of the mobile device, and ultimately protect the integrity of the mobile connection.

Regarding **Claim 14**,
Claim 14 list all the same elements of **claim 11**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 11** applies equally as well to **claim 14**.

Response to Arguments

8. Applicant's arguments with respect to claims 9-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any response to this Office Action should be **faxed** to (571) 272-8300 or **mailed** to:

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Hand-delivered responses should be brought to
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, Virginia 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NINOS DONABED whose telephone number is (571)270-3526. The examiner can normally be reached on Monday-Friday, 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. D./
Examiner, Art Unit 2444
/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444